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AMENDMENTS TO THE ABSTRACT:

A method for manufacturing a GaN-based light-emitting diode (LED) is provided provides with the following steps of: providing a substrate; forming a GaN semiconductor epitaxy layer on the substrate, the GaN semiconductor epitaxy layer further including an n-type GaN contact layer, a light-emitting layer and a p-type GaN contact layer; forming a digital penetration layer on the p-type GaN contact layer; using a multi-step ~~multi-step~~ dry etching method to etch the digital penetration layer, the p-type GaN contact layer, the light-emitting layer to form an n-metal forming area, etching terminating at the light-emitting layer; forming a first ohmic contact electrode on the digital penetration layer for ~~[[said]]~~ a p-type ohmic contact layer and a second ohmic contact electrode on the n-metal forming area for ~~[[said]]~~ an n-type ohmic contact layer; and finally, forming pads on both ~~[[said]]~~ first ~~ohmic-contact-electrode~~ and ~~[[said]]~~ second ohmic contact electrode electrodes.